

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A control device for a vehicle alternator, comprising:

an alternator connected to a battery mounted in a vehicle;

a regulator including a regulator ~~IC~~ integrated circuit (IC) for adjusting ~~the~~ a power generation voltage of the alternator; and

an ~~ECU~~ electronic control unit (ECU) connected to the regulator,

wherein an average value obtained by performing an averaging process on an ON time of a ~~DF~~ duty of field coil (DF) signal measured during a predetermined sampling time is used as an ON ratio information of the DF signal inputted from the regulator to the ECU.

2. (Original) A control device for a vehicle alternator according to claim 1, wherein the regulator IC comprises:

a power transistor for performing ON/OFF control of a field current of the alternator;

a counter for measuring the ON time of the DF signal as a counter value, the counter value being cleared to 0 by a reset signal;

a timer for generating a sampling signal and the reset signal in each sampling time;

an averaging circuit for performing an averaging process on the counter value in response to the sampling signal; and

a storage circuit for storing the average value calculated by the averaging circuit.

3. (Original) A control device for a vehicle alternator according to claim 1 or 2, wherein the sampling time is set to an arbitrary value in advance.

4. (Original) A control device for a vehicle alternator according to claim 2, wherein the DF signal is a gate logic signal of the power transistor.

5. (Currently Amended) A control device for a vehicle alternator according to claim 4, wherein the regulator IC includes an AND ~~gates~~ gate, and the AND gate inputs a clock signal to the counter during an ON period of the gate logic signal.

6. (Currently Amended) A control device for a vehicle alternator according to claim 2, wherein the ~~FD~~ DF signal is a field logic signal on a side of a collector terminal of the power transistor.

AMENDMENT UNDER 37 C.F.R. § 1.312
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7. (Currently Amended) A control device for a vehicle alternator according to claim 6, wherein the regulator ~~IS~~ IC includes an OR gate, and the OR gate inputs a clock signal to the counter during an OFF period of the field logic signal.